

ABSTRACT

A general method for vaccinating against any pathogen is presented. The method utilizes expression library immunization, where an animal is inoculated with an expression library constructed from fragmented genomic DNA of the pathogen. All potential epitopes of the pathogen's proteins are encoded in its DNA, and genetic immunization is used to directly introduce one or more expression library clones to the immune system, producing an immune response to the encoded protein. Inoculation of expression libraries representing portions of the *Mycoplasma pulmonis* genome was shown to protect mice from subsequent challenge by this natural pathogen. Protection against *Listeria* was also obtained using the method.

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